What is claimed is:

1. An optical pick-up device comprising:

a light source for emitting a linear polarized light beam with a first-type of polarized component and a second type of polarized component;

a polarized light beam converter for converting the first type of polarized component of the linear polarized light beam into the second type of polarized component;

a first splitter for partially transmitting and partially reflecting the linear polarized light beam with the second type of polarized component;

a first collimating lens for converging the transmitted linear polarized light beam with the second type of polarized component onto an optical disc; and

a photo-detector for receiving a corresponding light beam reflected by the optical disc.

2. The optical pick-up device in accordance with claim 1, further comprising a polarized light beam splitter located between the polarized light beam converter and the first splitter.

3. The optical pick-up device in accordance with claim 1, further comprising a second collimating lens set between the light source and the polarized light beam converter.

4. The optical pick-up device in accordance with claim 1, wherein the light source comprises a semiconductor laser.

5. The optical pick-up device in accordance with claim 1, wherein the light source comprises a light emitting diode.

6. The optical pick-up device in accordance with claim 1, wherein the polarized light beam converter comprises a birefringent crystal and a plurality of

half-wave plates mounted on a surface of the birefringent crystal.

7. The optical pick-up device in accordance with claim 6, wherein the polarized light beam converter further comprises a first micro lens array, and a second micro lens array between the first micro lens array and the birefringent crystal.
8. The optical pick-up device in accordance with claim 7, wherein each lens of the first micro lens array is a convex lens.
9. The optical pick-up device in accordance with claim 7, wherein each lens of the second micro lens array is a concave lens.
10. The optical pick-up device in accordance with claim 7, wherein the birefringent crystal is a yttrium vanadate crystal or a lithium niobate crystal.
11. The optical pick-up device in accordance with claim 6, wherein the half-wave plates are attached on the surface of the birefringent crystal by epoxy resin.
12. The optical pick-up device in accordance with claim 1, wherein the first splitter comprises a reflecting face partially reflecting the linear polarized light beam with the second type of polarized component.
13. The optical pick-up device in accordance with claim 1, wherein the first collimating lens is an aspheric lens.
14. The optical pick-up device in accordance with claim 7, wherein a distance between any two adjacent half-wave plates is equal to a height of each half-wave plate, and the height of each half-wave plate is equal with a width of light rays output from a corresponding lens of the second micro lens array.
15. An optical pick-up device comprising:

a light source for emitting a linear polarized light beam having a first kind of polarized component and a second kind of polarized component;

a polarized light beam converter for converting the first kind of polarized component of the linear polarized light beam into the second kind of polarized

component;

a splitter aligned with the polarized light beam converter for partially transmitting and partially reflecting the linear polarized light beam with the second kind of polarized component;

a collimating lens for converging the transmitted linear polarized light beam with the second kind of polarized component onto an optical disc; and

a photo-detector for receiving a corresponding light beam reflected by the optical disc.

16. The optical pick-up device in accordance with claim 15, wherein the polarized light beam converter comprises a birefringent crystal and a plurality of half-wave plates mounted onto a surface of the birefringent crystal.

17. The optical pick-up device in accordance with claim 16, wherein the polarized light beam converter further comprises a first micro lens array, and a second micro lens array situated between the first micro lens array and the birefringent crystal.

18. The optical pick-up device in accordance with claim 17, wherein a distance between any two adjacent half-wave plates is equal to a height of each half-wave plate, and the height of each half-wave plate is equal to a width of light rays output from a corresponding lens of the second micro lens array.